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## RAW SEQUENCE LISTING

DATE: 09/16/2004

PATENT APPLICATION: US/10/694,418

TIME: 12:18:02

Input Set : N:\Cr3\RULE60\10694418.raw

Output Set: N:\CRF4\09162004\J694418.raw

1 <110> APPLICANT: Kandimalla, Ekambar R.  
 2 Zhao, Qiuyan  
 3 Yu, Dong  
 4 Agrawal, Sudhir  
 5 <120> TITLE OF INVENTION: Modulation of Immunostimulatory Activity of  
 Immunostimulatory  
 6 Modified oligodeoxynucleotide phosphorothioate Analogs by  
 7 Positional Chemical Changes  
 8 <130> FILE REFERENCE: HYZ-479CP (47508.577)  
 9 <140> CURRENT APPLICATION NUMBER: US/10/694,418  
 10 <141> CURRENT FILING DATE: 2003-10-27  
 11 <150> PRIOR APPLICATION NUMBER: US/09/965,116  
 12 <151> PRIOR FILING DATE: 2001-09-26  
 13 <150> PRIOR APPLICATION NUMBER: US 09/712,898  
 14 <151> PRIOR FILING DATE: 2000-11-15  
 15 <150> PRIOR APPLICATION NUMBER: US 60/235,452  
 16 <151> PRIOR FILING DATE: 2000-09-26  
 17 <150> PRIOR APPLICATION NUMBER: US 60/235,453  
 18 <151> PRIOR FILING DATE: 2000-09-26  
 19 <160> NUMBER OF SEQ ID NOS: 112  
 20 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 18  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Artificial Sequence  
 26 <220> FEATURE:  
 27 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs  
 28 <400> SEQUENCE: 1  
 29 ctatctgacg ttctctgt 18  
 31 <210> SEQ ID NO: 2  
 32 <211> LENGTH: 18  
 33 <212> TYPE: DNA  
 34 <213> ORGANISM: Artificial Sequence  
 35 <220> FEATURE:  
 36 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs  
 37 <220> FEATURE:  
 38 <221> NAME/KEY: modified\_base  
 39 <222> LOCATION: 9  
 40 <223> OTHER INFORMATION: c = 5-hydroxydeoxycytidine  
 41 <400> SEQUENCE: 2  
 42 ctatctgacg ttctctgt 18  
 44 <210> SEQ ID NO: 3  
 45 <211> LENGTH: 18  
 46 <212> TYPE: DNA

ENTERED

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47 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
49 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
50 <220> FEATURE:
51 <221> NAME/KEY: modified_base
52 <222> LOCATION: 10
53 <223> OTHER INFORMATION: c = 5-hydroxydeoxycytidine
54 <400> SEQUENCE: 3
55      ctatctgacc ttctctgt                                18
57 <210> SEQ ID NO: 4
58 <211> LENGTH: 18
59 <212> TYPE: DNA
60 <213> ORGANISM: Artificial Sequence
61 <220> FEATURE:
62 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
63 <220> FEATURE:
64 <221> NAME/KEY: modified_base
65 <222> LOCATION: 9
66 <223> OTHER INFORMATION: c = N4-ethyldeoxycytidine
67 <400> SEQUENCE: 4
68      ctatctgacg ttctctgt                                18
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71 <211> LENGTH: 18
72 <212> TYPE: DNA
73 <213> ORGANISM: Artificial Sequence
74 <220> FEATURE:
75 <223> OTHER INFORMATION: synthesis of CpG-PS-oligos containing cytosine analogs
76 <220> FEATURE:
77 <221> NAME/KEY: modified_base
78 <222> LOCATION: 10
79 <223> OTHER INFORMATION: c = N4-ethyldeoxycytidine
80 <400> SEQUENCE: 5
81      ctatctgacc ttctctgt                                18
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84 <211> LENGTH: 16
85 <212> TYPE: DNA
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87 <220> FEATURE:
88 <223> OTHER INFORMATION: synthesis of end-blocked CpG-PS modified oligodeoxynucleotide
89      phosphorothioate
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91      aaggtcgagc gttctc                                    16
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95 <212> TYPE: DNA
96 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: synthesis of end-blocked CpG-PS modified oligodeoxynucleotide
99      phosphorothioate

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Input Set : N:\Crif3\RULE60\10694418.raw

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100 <400> SEQUENCE: 7
101      atggcgcacg ctgggaga                                18
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105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial Sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: oligodeoxynucleotide phosphorothioate
109 <400> SEQUENCE: 8
110      cctactagcg ttctcatc                                18
112 <210> SEQ ID NO: 9
113 <211> LENGTH: 18
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: oligodeoxynucleotide phosphorothioate
118 <220> FEATURE:
119 <221> NAME/KEY: modified_base
120 <222> LOCATION: 10
121 <223> OTHER INFORMATION: g = 1',2'-Dideoxyribose
122 <400> SEQUENCE: 9
123      cctactagcg ttctcatc                                18
125 <210> SEQ ID NO: 10
126 <211> LENGTH: 18
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
131 <220> FEATURE:
132 <221> NAME/KEY: modified_base
133 <222> LOCATION: 8
134 <223> OTHER INFORMATION: g = 1',2'-Dideoxyribose
135 <400> SEQUENCE: 10
136      cctactagcg ttctcatc                                18
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139 <211> LENGTH: 18
140 <212> TYPE: DNA
141 <213> ORGANISM: Artificial Sequence
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143 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
144 <220> FEATURE:
145 <221> NAME/KEY: modified_base
146 <222> LOCATION: 7
147 <223> OTHER INFORMATION: a = 1',2'-Dideoxyribose
148 <400> SEQUENCE: 11
149      cctactagcg ttctcatc                                18
151 <210> SEQ ID NO: 12
152 <211> LENGTH: 18
153 <212> TYPE: DNA

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154 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
157 <220> FEATURE:
158 <221> NAME/KEY: modified_base
159 <222> LOCATION: 6
160 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
161 <400> SEQUENCE: 12
162      cctactagcg ttctcatc                                     18
164 <210> SEQ ID NO: 13
165 <211> LENGTH: 18
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial Sequence
168 <220> FEATURE:
169 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
170 <220> FEATURE:
171 <221> NAME/KEY: modified_base
172 <222> LOCATION: 5
173 <223> OTHER INFORMATION: c = 1',2'-Dideoxyribose
174 <400> SEQUENCE: 13
175      cctactagcg ttctcatc                                     18
177 <210> SEQ ID NO: 14
178 <211> LENGTH: 18
179 <212> TYPE: DNA
180 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
183 <220> FEATURE:
184 <221> NAME/KEY: modified_base
185 <222> LOCATION: 4
186 <223> OTHER INFORMATION: a = 1',2'-Dideoxyribose
187 <400> SEQUENCE: 14
188      cctactagcg ttctcatc                                     18
190 <210> SEQ ID NO: 15
191 <211> LENGTH: 18
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
196 <220> FEATURE:
197 <221> NAME/KEY: modified_base
198 <222> LOCATION: 4
199 <223> OTHER INFORMATION: a = 1',2'-Dideoxyribose
200 <400> SEQUENCE: 15
201      cctactagcc ttctcatc                                     18
203 <210> SEQ ID NO: 16
204 <211> LENGTH: 18
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence

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207 <220> FEATURE:
208 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
209 <220> FEATURE:
210 <221> NAME/KEY: modified_base
211 <222> LOCATION: 11
212 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
213 <400> SEQUENCE: 16
214      cctactagcg ttctcatc                                     18
216 <210> SEQ ID NO: 17
217 <211> LENGTH: 18
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
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222 <220> FEATURE:
223 <221> NAME/KEY: modified_base
224 <222> LOCATION: 12
225 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
226 <400> SEQUENCE: 17
227      cctactagcg ttctcatc                                     18
229 <210> SEQ ID NO: 18
230 <211> LENGTH: 18
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
235 <220> FEATURE:
236 <221> NAME/KEY: modified_base
237 <222> LOCATION: 13
238 <223> OTHER INFORMATION: c = 1',2'-Dideoxyribose
239 <400> SEQUENCE: 18
240      cctactagcg ttctcatc                                     18
242 <210> SEQ ID NO: 19
243 <211> LENGTH: 18
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
248 <220> FEATURE:
249 <221> NAME/KEY: modified_base
250 <222> LOCATION: 14
251 <223> OTHER INFORMATION: t = 1',2'-Dideoxyribose
252 <400> SEQUENCE: 19
253      cctactagcg ttctcatc                                     18
255 <210> SEQ ID NO: 20
256 <211> LENGTH: 18
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/694,418

DATE: 09/16/2004  
TIME: 12:18:03

Input Set : N:\Crf3\RULE60\10694418.raw  
Output Set: N:\CRF4\09162004\J694418.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 5  
Seq#:6; Line(s) 88  
Seq#:7; Line(s) 98  
Seq#:24; Line(s) 313  
Seq#:25; Line(s) 326  
Seq#:26; Line(s) 339  
Seq#:27; Line(s) 352  
Seq#:28; Line(s) 366  
Seq#:29; Line(s) 379  
Seq#:30; Line(s) 392  
Seq#:31; Line(s) 405  
Seq#:32; Line(s) 419  
Seq#:33; Line(s) 432  
Seq#:34; Line(s) 445  
Seq#:48; Line(s) 627  
Seq#:49; Line(s) 640  
Seq#:50; Line(s) 653  
Seq#:51; Line(s) 666  
Seq#:52; Line(s) 679  
Seq#:53; Line(s) 692  
Seq#:54; Line(s) 705  
Seq#:55; Line(s) 718  
Seq#:56; Line(s) 731  
Seq#:57; Line(s) 744  
Seq#:58; Line(s) 757  
Seq#:59; Line(s) 770  
Seq#:60; Line(s) 783  
Seq#:61; Line(s) 796  
Seq#:62; Line(s) 809  
Seq#:63; Line(s) 823  
Seq#:64; Line(s) 836  
Seq#:65; Line(s) 849  
Seq#:66; Line(s) 862  
Seq#:67; Line(s) 875  
Seq#:68; Line(s) 888  
Seq#:69; Line(s) 902  
Seq#:70; Line(s) 911  
Seq#:71; Line(s) 924  
Seq#:72; Line(s) 937  
Seq#:73; Line(s) 951  
Seq#:74; Line(s) 960  
Seq#:75; Line(s) 973  
Seq#:76; Line(s) 986

**RAW SEQUENCE LISTING ERROR SUMMARY**

PATENT APPLICATION: **US/10/694,418**

DATE: 09/16/2004

TIME: 12:18:03

Input Set : **N:\Crf3\RULE60\10694418.raw**

Output Set: **N:\CRF4\09162004\J694418.raw**

Seq#:77; Line(s) 999

Seq#:78; Line(s) 1008

Seq#:79; Line(s) 1021

Seq#:80; Line(s) 1034

Seq#:81; Line(s) 1047

Seq#:82; Line(s) 1060

Seq#:83; Line(s) 1073

Seq#:84; Line(s) 1087

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/694,418

DATE: 09/16/2004

TIME: 12:18:03

Input Set : N:\Crf3\RULE60\10694418.raw

Output Set: N:\CRF4\09162004\J694418.raw